

REMARKS

Claims 1-31 are all the claims pending in the application.

I. Discussion of Claim Rejections Under 35 U.S.C. § 103(a) and Applicant's Statement of Substance of Interview of October 28, 2009

Applicant thanks Supervisory Patent Examiner Xiao Wu and Examiner David Welch for their time in conducting the courteous and productive telephonic interview with Applicant's representative, Logan Brown, on October 28, 2009 regarding the rejections of the claims under 35 U.S.C. §103(a).

As Applicant's statement of substance of this interview, Applicant has reviewed the Examiner's Interview Summary and Applicant respectfully submits the Interview Summary accurately sets forth the points discussed in the interview.

As requested by the Examiner, Applicant has included the arguments presented during the Examiner's Interview below for the Examiner's full consideration.

Claims 1-6 and 20-23

Claims 1-6 and 20-23 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yoshitani et al. (U.S. Patent Application Publication No. 2002/0089702), referred herein as Yoshitani, in view of Hoshuyama, and further in view of Honma (U.S. Patent No. 6,876,389, referred herein as Honma). Applicant respectfully traverses the rejection.

Claim 1 recites, *inter alia*,

a data processor configured to select either one of the main image data and the thumbnail image data as processing target image data, and to execute processing including color space conversion of the processing target image data,

wherein the data processor:

if the thumbnail image is the processing target, executes a prescribed basic color space conversion regardless of content of the color space

identification information to obtain first converted image data of the thumbnail image, and
if the main image is the processing target, executes a specified color space conversion utilizing a color space specified by the color space identification information to obtain second converted image data of the main image ,
the first and second converted image data being expressed by an identical color system.

It should be noted here that the term “processing target” denotes an image to be processed.

The Examiner asserted that the recitations of Claim 1 are obvious from Yoshitani, Hoshuyama, and Honma. Applicant disagrees for at least the following reasons.

On page 4, lines 17-22 of the Office Action, the Examiner asserted that Yoshitani teaches that the data processor executes a prescribed basic color space conversion, in this case YCbCr, when the processing target is the reduced JPEG image, and the data processor executes a specified color space conversion, in this case CMYK, when the processing target is the non-compressed main image. However, Yoshitani does not teach these things for the reasons discussed below.

Yoshitani discloses a facsimile apparatus 101 equipped with a hand scanner 102. Specifically, the facsimile apparatus creates an RGB image. Then, Yoshitani discloses that the facsimile apparatus: **converts the RGB image to CMYK when performing “Copy”; converts the RGB image to CIE/LAB when performing “Fax”; and converts the RGB image to YCrCb when performing “E-mail”.** However, these are conversions of the same image depending on a intended use. Regardless of whether the RGB data is converted for transport, the reduced JPEG image is converted back to the RGB data prior to the YCbCr conversion.

Conversion to YCbCr

The color space conversion to YCbCr is performed when the input RGB image is to be transmitted via e-mail (paragraph 0063). Here, the term “input RGB image” is either i) RGB image that is read by the hand scanner 102 and corrected by the shading correction section 245, or ii) RGB image that is read out from RAM 242 (paragraph 0061). As described in paragraph 0097, the RGB image stored in RAM 242 is RGB image data which had been corrected by the shading correction section 245, and which is uncompressed image data of 8 bits in each of RGB colors. Accordingly, the term “input RGB image” in paragraph 0063 denotes uncompressed RGB image data which has been read by the hand scanner 102.

Conversion to CMYK

The color space conversion to CMYK is performed when the RGB image is to be printed with the color printer 212 (paragraphs 0066, 0100). Here the term “RGB image” denotes the uncompressed RGB image data which has been read by the hand scanner 102, as discussed before.

As discussed above, Yoshitani teaches that the color space conversion to YCbCr is performed when the RGB image is to be transmitted via e-mail and that the color space conversion to CMYK is performed when the RGB image is to be printed with the color printer. In either of the e-mail transmission and the color printing, **the processing target image, or an image to be processed, is the uncompressed RGB image data which allegedly corresponds to the main image.** Accordingly, Yoshitani does not teach or suggest that the data processor executes different color space conversions depending on whether the processing target is the reduced JPEG image or the non-compressed main image, as asserted in page 7, lines 1-6 of the Office Action.

On page 5, lines 2-11 of the Office Action, the Examiner asserts that Hoshuyama teaches an image file processing apparatus comprising processing of a main image, and a thumbnail image that represents the main image, wherein the color space conversions are performed to obtain color space converted image data, and wherein the converted image data are expressed by an identical color system. However, Hoshuyama does not teach these things for at least the reasons that follow.

Hoshuyama refers to “thumbnail image(s)” only in paragraph 0026 describing that the tag data 22 (Fig. 2) includes a thumbnail image, and nothing more is described or suggested concerning thumbnail image(s) in Hoshuyama. In other words, Hoshuyama does not teach or suggest that the thumbnail image is to be processed, or that different color space conversions are selected for the thumbnail image and the main image.

On page 5, lines 21 through page 6, line 6 of the Office Action, the Examiner asserts that Honma teaches that a prescribed processing is executed if the thumbnail image data is the processing target, and a specified processing is executed if the main image data is the processing target. However, **Honma only teaches that the aspect ratios of a thumbnail image and a main image are compared, and if they are the same the thumbnail image is used as the display image data as it is, while if they are different, one of the following is done:**

- (1) the main image is used as the display image data,**
- (2) the thumbnail image is subjected to a clipping process, or**
- (3) the clipping process method is determined from the information on the type of a digital camera.**

Honma has nothing to do with color space conversion. Rather, Honma is totally directed to clipping process of the image to be displayed. Accordingly, even if Yoshitani and

Hoshuyama and Honma are combined together, the distinct features of Claim 1 would not be obvious to the person of ordinary skill in the art.

As discussed in the above points, Yoshitani and Hoshuyama and Honma, either alone or in combination, fail to teach or suggest that different color space conversions are selected for the thumbnail image and the main image. Accordingly, Claim 1 is not obvious from the cited references.

Accordingly, Applicant respectfully submits that claims 1-2, 20 and 22 would not have been obvious under 35 U.S.C. § 103(a) over Yoshitani and Hoshuyama and Honma, because the references, alone or in combination, do not teach or suggest all of the features and limitations of the claims. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claim 1 and claims 2, 20 and 22 at least by virtue of their dependency from claim 1.

Applicant further respectfully submits independent claims 3 and 5 are patentable over the cited combination for at least similar reasons. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claims 3 and 5 and claims 4, 6, 21 and 23 at least by virtue of their dependency from claim 3.

Claims 7-9, 12, 17-19 and 24-29:

Claims 7-9, 12, 17-19 and 24-29 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hoshuyama in view of Honma. Applicant respectfully traverses the rejection.

Claim 7 recites, *inter alia*,

a display unit that,
if the main image is to be displayed, displays
the main image converted by a first color space
conversion according to the color space information,
and
if a thumbnail image of the main image is to be
displayed, displays the thumbnail image converted by a

prescribed second color space conversion regardless of the color space information.

In the Office Action, the Examiner asserted that the above highlighted recitations of claim 7 are taught or suggested by Hoshuyama. The Applicant disagrees.

Specifically, the Examiner asserted that the above highlighted recitations Claim 7 are disclosed in page 2, paragraph 23, lines 1-3; paragraph 24, lines 16-21; page 3, paragraph 26, the last 3 lines; paragraph 32, lines 1-4; paragraph 36, lines 9-17; page 4, paragraph 46, the last 4 lines; paragraph 47, lines 1-4; and page 5, paragraph 55, lines 4-10. While it is true that paragraph 26 explains that the tag data 22 (Fig. 2) includes a thumbnail image, Hoshuyama refers to “thumbnail image(s)” only in this paragraph 0026, and nothing more is described or suggested concerning thumbnail image(s) in Hoshuyama. In other words, Hoshuyama does not disclose anything about displaying of a thumbnail image, nor anything about what color space conversion is to be selected in order to display a thumbnail image. Hoshuyama only teaches that there are multiple possible color space conversions which may be used depending on the conditions of a given image. See paragraph [0007]. Hoshuyama fails to teach at least displaying a main image converted by a first color space conversion and displaying a thumbnail image converted by a prescribed second color space conversion. Accordingly, Hoshuyama does not teach or suggest the above highlighted recitations of claim 7.

The Examiner cites to Honma as allegedly teaching that the main image or the thumbnail image are selected and displayed, wherein a first processing is executed on the main image data and a second processing is executed on the thumbnail. See Office Action, paragraph bridging pages 8-9. However, as previously discussed in claim 1, Honma has nothing to do with color space conversion, but rather is totally directed to a clipping process of the image to be displayed. Honma only teaches comparing the aspect ratios of a main image and a thumbnail image, and

clipping the thumbnail image if necessary. See col. 3, line 18-48. Accordingly, even if Hoshuyama and Honma are combined together, the distinct features of claim 7 would not be obvious to the person of ordinary skill in the art.

The Examiner asserts that it would have been obvious to combine the thumbnail/main image selection of Honma with Hoshuyama because “utilizing the thumbnail/main image selection and executing respective image processings unique to the selection increases the quality of the output image data because the output image will be as faithful to the input image as possible.” See Office Action at page 9, 1st paragraph. Applicant submits that the Examiner is improperly applying hindsight reasoning to make this rejection. As noted above, Honma has nothing to do with color space conversions. Honma only relates to clipping an image to affect the aspect ratio. Combining the selection of Honma with the invention of Hoshuyama would not result in the invention of claim 7, in which a main image to be displayed is converted by a first color space conversion and a thumbnail to be displayed is converted by a prescribed second color space conversion. The Examiner assumes without any evidence that this feature would be obvious from the cited art. Applicant submits that, for the reasons noted above, this is not an obvious feature.

Furthermore, by this Amendment Applicant amends claim 7 to recite that the main image and the thumbnail image are displayed using a device-dependent color space for the display unit. The amendment clarifies that the main image and the thumbnail image are both displayed in the device-dependent color space for the display unit, and also that the main image is converted from the color space specified by the color space information to the device-dependent color space for the display unit. Applicant submits that this amendment is supported in the original disclosure at

least at page 9, lines 7-16 and page 9, line 27 to page 10, line 2. Applicant also amends claims 18, 19, and 25 to include analogous features.

In view of the above, Applicant respectfully submits that claims 7-9, 12, 17 and 24 would not have been obvious under 35 U.S.C. § 103(a) over Hoshuyama, in view of Honma, because the references, alone or in combination, do not teach or suggest all of the features and limitations of the claims. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claim 7 and claims 8, 9, 12, 17 and 24 at least by virtue of their dependency from claim 7.

Applicant further respectfully submits independent claims 18, 19, and 25 are patentable over the cited combination for at least similar reasons. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claims 18, 19, and 25 and claims 26-29 at least by virtue of their respective dependencies from claims 18 and 25.

Claims 10, 11, 13-16, 30 and 31

Claims 10, 11, 13-16, 30 and 31 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hoshuyama in view of Honma and further in view of Elswick et al. (U.S. Patent No. 6,791,620, referred herein as Elswick). Applicant respectfully traverses the rejection.

Above, Applicant pointed out that Hoshuyama in view of Honma is deficient vis-à-vis independent claims 7 and 18. Applicant respectfully submits that Elswick fails to compensate for the deficiencies of Hoshuyama, in view of Honma. Even taken for what they would have meant as a whole to an artisan of ordinary skill, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to the subject matter of independent claims 7 and 18, much less dependent claims 10, 11, 13-16, 30 and 31.

Therefore, claims 10, 11, 13-16, 30 and 31 would not have been obvious within the meaning of 35 U.S.C. §103(a). Additional, untaught modifications would have been necessary.

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claims 10, 11, 13-16, 30 and 31.

II. Objections

Applicant respectfully requests the Examiner withdraw the objections to claims 19, 21 and 25 in view of the self-explanatory amendments presented above.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Christopher J. Pfister/
Christopher J. Pfister
Registration No. 63,213

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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Date: December 2, 2009